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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/221,291 12/23/98 GRAHAM

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EXAMINER

BURD, K

ART UNIT

PAPER NUMBER

2631

DATE MAILED:

09/21/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/221,291

Applicant(s)

GRAHAM

Examiner

Kevin M. Burd

Art Unit

2631



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on May 29, 2001
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on Dec 23, 1998 is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☐ All b) ☐ Some* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892) 18) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 16) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948) 19) ☐ Notice of Informal Patent Application (PTO-152)
- 17) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s). 4-6 20) ☐ Other:

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DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement filed 3/17/1999 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each U.S. and foreign patent; each publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the information referred to therein has not been considered. A copy of US 5,812,517 was not provided.
2. The information disclosure statement filed 11/30/1999 fails to comply with the provisions of 37 CFR 1.97, 1.98 and MPEP § 609 because the items included are patent applications. A patent application is not considered prior art. It has been placed in the application file, but the information referred to therein has not been considered as to the merits. Applicant is advised that the date of any re-submission of any item of information contained in this information disclosure statement or the submission of any missing element(s) will be the date of submission for purposes of determining compliance with the requirements based on the time of filing the statement, including all certification requirements for statements under 37 CFR 1.97(e). See MPEP § 609 ¶ C(1).

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Drawings

3. The drawings are objected to because figure 11 is not labeled "figure 11".
Correction is required.

Claim Objections

4. Claims 2-6, 10, 11 and 18 are objected to because of the following informalities:
Claims 2 and 11 are missing a verb between "pulse" and "connected" on line 2. Claims 3-6 are objected to because of dependence on claim 2. In claim 10, the word "a" is missing between "to" and "different" in line 2. In claim 18, the phrase "wherein each biphasic pulse is of different type its immediately neighboring biphasic pulses" is unclear. Appropriate correction is required.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1, 8, 10, 12-14 and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Miwa (US 5,640,160).

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Regarding claims 1 and 8, Miwa discloses a method of transmitting pulses comprising a "1" (positive) pulse and a "0" (negative) pulse as shown in figures 1a-1e and figure 2. A "1" pulse is sent at a first time instance for t seconds and a zero pulse is sent for an additional multiple of t seconds. These combined pulses make up a first biphasic pulse. Immediately after the zero pulse is finished being sent, a second biphasic pulse will be sent at that time instance. The time interval between the first time instance and the second time instance will represent a set of data bits as shown in figure 2. The types of "biphasic" pulses, the combined "1" and "0" pulse, are different as shown in figure 2.

Regarding claim 10, the types of "biphasic" pulses, the combined "1" and "0" pulse, are different as shown in figure 2. Each of the "biphasic" pulses represent different sets of data.

Regarding claim 12, an odd "biphasic" pulse is shown in figure 2 representing a two bit value of 1 where an even "biphasic" pulse is shown representing a two bit value of 2.

Regarding claim 13, the odd and even "biphasic" pulses have different sequences of "1" and "0" pulses. As shown in figure 2, the sequence for "10" has a longer "0" pulse than for "01".

Regarding claim 14, all of the discloses pulses have an amplitude and a pulse width as shown in figure 2.

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Regarding claim 16, as discussed above, figure 2 shows the pulse width of the "biphasic" pulse representing a set of data.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 7 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miwa (US 5,640,160).

Regarding claims 7 and 17, Miwa discloses transmitting the pulse position data as discussed above in an IR module or radio controlled transceiver. Miwa does not disclose transmitting this data over a telephone wire. However, it would have been obvious for one of ordinary skill in the art at the time of the invention to transmit the data over any type of transmission medium capable of receiving this digital data including telephone wiring to allow this data to be received by its desired destination.

9. Claims 2-4, 6, 9, 11 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miwa (US 5,640,160) in view of Gonsewski et al (US 3,863,025).

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Regarding claims 2, Miwa discloses transmitting the pulse position data as discussed above. Miwa does not disclose the types of "biphasic" pulses are connected by different sequences of positive and negative pulses. Gonsewski discloses "biphasic" pulses are connected by different sequences of positive and negative pulses on figure 3. These pulses allow additional information to be transmitted as shown in the figure. It would have been obvious for one of ordinary skill in the art at the time of the invention to incorporate the data transmission shown in figure 3 of Gonsewski into the data transmission method of Miwa to allow more information to be transmitted in the previous amount of time.

Regarding claims 3, 9 and 18, Miwa discloses transmitting the pulse position data as discussed above. Miwa does not disclose transmitting the pulses do not carry any dc component. Gonsewski shows, in figure 3, the bipolar signaling. The dc component is removed and cancels the base line wander (column 1, lines 36-50). The bipolar signals can also be used to send additional data as shown in figure 3. For these reasons, it would have been obvious for one of ordinary skill in the art at the time of the invention to combine the data transmission of Gonsewski into the pulse modulation data transmission method of Miwa.

Regarding claim 4, all of the discloses pulses have an amplitude and a pulse width as shown in figure 2 of Miwa.

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Regarding claim 6, as discussed above, figure 2 shows the pulse width of the "biphasic" pulse representing a set of data.

10. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Miwa (US 5,640,160) and Rybicki et al (US 6,212,230).

Regarding claim 15, Miwa does not disclose altering the amplitude of the pulses to transmit additional data. However, Rybicki discloses in figures 27 and 28 altering the pulse amplitude to transmit additional data. It would have been obvious for one of ordinary skill in the art at the time of the invention to alter the amplitude to allow additional data to be transmitted over the same period of time.

11. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Miwa (US 5,640,160) and Gonsewski et al (US 3,863,025) as applied to claim 4 above, further in view of Rybicki et al (US 6,212,230).

Regarding claim 5, the combination does not disclose altering the amplitude of the pulses to transmit additional data. However, Rybicki discloses in figures 27 and 28 altering the pulse amplitude to transmit additional data. It would have been obvious for one of ordinary skill in the art at the time of the invention to alter the amplitude to allow additional data to be transmitted over the same period of time.

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Contact Information

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:

(703) 872-9314, (for formal communications intended for entry)(for informal or draft communications, please label "PROPOSED" or "DRAFT")

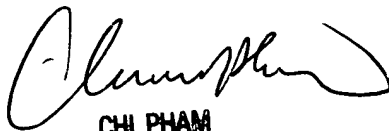
Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin Burd, whose telephone number is (703) 308-7034. The Examiner can normally be reached on Monday-Thursday from 9:00 AM - 5:00 PM. The examiner can also be reached on alternate Friday.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-4700.



Kevin M. Burd
PATENT EXAMINER
August 30, 2001



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